ſame principles, appears more ſurpriſing. 'Tis made of a thin round plate of window-glaſs, ſeventeen inches diameter, well gilt on both ſides, all but two inches next the edge. Two ſmall hemiſpheres of wood are then fixed with cement to the middle of the upper and under ſides, centrally oppoſite, and in each of them a thick ſtrong wire eight or ten inches long, which together make the axis of the wheel. It turns horizontally on a point at the lower end of its Axis, which reſts on a bit of braſs cemented within a glaſs ſalt-celler. The upper end of its axis paſſes thro' a hole in a thin braſs plate cemented to a long ſtrong piece of glaſs, which keeps it ſix or eight inches diſtant from any non-electric, and has a ſmall ball of wax or metal on its top to keep in the fire. In a circle on the table which ſupports the wheel, are fixed twelve ſmall pillars of glaſs, at about four inches diſtance, with a thimble on the top of each. On the edge of the wheel is a ſmall leaden bullet communicating by a wire with the gilding of the *upper* ſurface of the wheel; and about ſix inches from it is another bullet communicating in like manner with the *under* ſurface. When the wheel is to be charged by the upper ſurface, a communication muſt be made from the under ſurface to the table. When it is well charg'd it begins to move; the bullet neareſt to a pillar moves towards the thimble on that pillar, and paſſing by electrifies it and then puſhes itſelf from it; the ſucceeding bullet, which communicates with the other ſurface of the glaſs, more ſtrongly attracts that thimble on account of its being before electrified by the other bullet; and thus the wheel encreaſes its motion till it comes to ſuch a height as that the reſiſtance of the air regulates it. It will go half an hour, and make one minute with another twenty turns in a minute, which is ſix hundred turns in the whole; the bullet of the upper ſurface giving in each turn twelve ſparks, to the thimbles, which make ſeven thouſand two hundred ſparks; and the bullet of the under ſurface receiving as many from the thimbles; thoſe bullets moving in the time near two thouſand five hundred feet. --- The thimbles are well fixed, and in ſo exact a circle, that the bullets may paſs within a very ſmall diſtance of each of them. --- If inſtead of two bullets you put eight, four communicating with the upper ſurface, and four with the under ſurface, placed alternately; which eight, at about ſix inches diſtance, compleats the circumference, the force and ſwiftneſs will be greatly increaſed, the wheel making fifty turns in a minute; but then it will not continue moving ſo long. --- Theſe wheels may be applied, perhaps, to the ringing of chimes, and moving of light-made Orreries.

23. A ſmall wire bent circularly with a loop at each end; let one end reſt againſt the under ſurface of the wheel, and bring the other end near the upper ſurface, it will give a terrible crack, and the force will be diſcharged.

24. Every ſpark in that manner drawn from the ſurface of the wheel, makes a round hole in the gilding, tearing off a part of it in coming out; which ſhews that the fire

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